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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/240,406	01/29/99	FERNANDO J	777.229US1

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STEVEN J. ROCCI
WOODCOCK WASHBURN KURTZ& MACKIEWICZ & NO
ONE LIBERTY PLACE-46TH FLOOR
PHILADELPHIA PA 19103

EXAMINER
HWANG. J

ART UNIT	PAPER NUMBER
2172	

DATE MAILED:
10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.		Applicant(s)
Office Action Summary	09/240,406		FERNANDO ET AL.
	Examiner		Art Unit
	Joon H. Hwang		2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _08 August 2001_ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-28_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _29 January 1999_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)		4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .		6) ☐ Other: .

DETAILED ACTION

1.   The amendment is received on 8/8/2001.

The pending claims are 1-28.

Drawings

1.   The drawings are objected to because the reference number 24 next to the

reference number 38 (Program Data) in fig. 1 should be as 25 with "(RAM)" label.

Correction is required.

2.   The drawings are objected to because two unidirectional arrows from both 313

and 315 in fig. 3B should be labeled with "Yes (Y)," or "No (N)" appropriately.

Correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 3, 5-6, 10, 16-17, and 20-25 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Caron et al (U.S. Patent No. 6,108,661, the term "package" is

best understood by the examiner as "a computer application consisting of one or more

programs created to perform a particular type of work –for example, an accounting

package or a spreadsheet package," Microsoft Press, Computer Dictionary Third
Edition, published in 1997).

With respect to claims 1, 3, 10, 16-17, and 21, Caron discloses a system (a
standard computer system, fig.1 and lines 65-67 in col. 4 and lines 1-9 in col. 5) that
provides extended functionality from an extension to an extensible object (lines 41-44 in
col. 4, lines 45-46 in col. 10, and fig. 3). Caron discloses locating an extension (a
package containing a desired extended functionality, lines 4-8 in col. 6, lines 10-15 and
lines 51-53 in col. 7). Caron discloses obtaining an extension (a package comprising a
dynamic extension object, fig. 3, lines 10-15 in col. 7, and lines 8-15 and lines 53-62 in
col. 6) and directing references to the object that provides extended functionality in the
extension (lines 1-26 in col. 6). Caron discloses the increment of a reference count of
an object (lines 15-26 in col. 6) when the object is subsequently referenced which
implies the object is located. Caron also discloses the decrement of a reference count
by calling the Release method (lines 20-24 in col. 6). Caron shows the execution of
finding, obtaining, and referencing (lines 4-26 in col. 6) in order. Caron discloses
creating and handling events (lines 49-63 in col. 4, lines 56-59 in col. 6, and lines 29-34
in col. 8). Caron does not explicitly disclose creating the extension object. However,
Caron shows an object dynamically being destroyed when it is no longer needed (lines
24-26 in col. 6) which implies when a desired functionality is needed (lines 4-8 in col. 6),
an appropriate object is dynamically created. Therefore, based on Caron, it would have
been obvious to one having ordinary skill in the art at the time the invention was made
to create an extension object in order to provide the desired functionality.

With respect to claims 5 and 6, Caron discloses obtaining a controlling extensible object (lines 10-18 and lines 47-53 in col. 7 and fig. 3) concerning an extension provider object and creating a controlling extensible object (lines 26-29 in col. 11). Caron discloses passing a necessary parameter in a proper format (lines 54-57 in col. 5 and lines 10-15 and lines 51-53 in col. 7). Caron does not explicitly disclose locating a controlling extensible object. However, Caron shows locating a desired method, object, or functionality (lines 4-8 in col. 6 and lines 52-57 in col. 5) which can be applied to locating a controlling extensible object. Therefore, based on Caron, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate an object and pass appropriate parameters to create an object in order to provide the desired functionality and accomplish the desired task.

With respect to claim 20, Caron disclosed the claimed subject matter as discussed above except creating an extension object from an extension provider object (a controlling extensible object). However, Caron shows a desired extended functionality (an extension object) being provided through a controlling extensible object (lines 10-15 and lines 51-53 in col. 7) that could be viewed as the extension object being created by the controlling extensible object, since there would be no difference for the extension object being provided. Therefore, based on Caron, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an extension object from a controlling extensible object (an extension provider) in order to accomplish the desired task.

With respect to claims 22-24, Caron discloses forwarding and resolving a request (query interface request) that a controlling extensible object receives (concerning an extension provider object) for extended functionality to an extension (package, lines 10-15 in col. 7) that comprises the controlling extensible object (lines 42-43 in col. 7) and associating an extensible object and extended functionality which relationship could be viewed as in parent (an extensible object) and child (extended functionality) relationship (fig. 2) in runtime environment (lines 11-13 in col. 8). Caron discloses returning the interface (fig. 2, lines 8-10 in col. 7, and lines 64-67 in col. 10). Caron discloses the decrement of a reference count by calling the Release method and the destruction of the object if the reference count is 0 (lines 20-26 in col. 6). Caron does not explicitly disclose creating the extension object. However, Caron shows an object dynamically being destroyed when it is no longer needed (lines 24-26 in col. 6) which implies when a desired functionality is needed (lines 4-8 in col. 6), an appropriate object is dynamically created. Therefore, based on Caron, it would have been obvious to one having ordinary skill in the art at the time the invention was made to create an extension object in order to provide the desired functionality.

With respect to claim 25, Caron discloses COCLASS Typeinfo that returns the description of the static part of the extensible object (lines 43-44 and lines 50-52 in col. 8). Caron does not disclose expressly what other information (data) the description of the static part contains and an identifier for extensible object. However, Caron shows an identifier for a method of an object (line 65 in col. 5) which implies the static part of the extensible object could contain an identifier of the extensible object. Therefore,

based on Caron, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to apply an identifier to an object and include the identifier

in the description in order to identify the object.

5.   Claims 2, 8-9, 18, and 26-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Caron et al (U.S. Patent No. 6,108,661) in view of Buxton et al (U.S.

Patent No. 5,970,252).

With respect to claims 2, 8-9, 18, and 27-28, Caron discloses an extensible

object and an extension (package) having an interface for proving extended functionality

(fig. 2 and fig. 3). Caron discloses a controlling extensible object that provides extended

functionality by forward a request to the extension (lines 10-15 in col. 7) concerning an

extension provider. Caron does not explicitly disclose an extension in an extension

database, searching an extension entry in an extension database, and obtaining a

package from an external source. Buxton discloses a system that distributes a

customized template (a package providing extended functionality) to other systems

through a distribution pack (lines 19-30, lines 36-40, and lines 51-63 in col. 2 and lines

5-9 in col. 11). Buxton discloses templates (packages of extensions) stored in template

storage (an extension database, lines 26-56 and line 67 in col. 13 and lines 1-4 in col.

14) and information of extension entries for searching (lines 24-40 in col. 14).

Therefore, based on Caron in view of Buxton, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to store templates (packages)

in template storage (an extension database) in order to provide actual data for creating

dynamic objects and to search an extension entry in database in order to provide a desired method, object, or functionality.

With respect to claim 26, Caron discloses creating and setting an extension to an extensible object in the development environment and runtime environment respectively (lines 15-50 in col. 11). Caron does not expressly disclose storing a GetObject method name (of an extension) in a fixed name space (an extension database). Buxton discloses templates (packages of extensions) stored in template storage (an extension database, lines 26-56 and line 67 in col. 13 and lines 1-4 in col. 14). Therefore, based on Caron in view of Buxton, it would have been obvious to one having ordinary skill in the art at the time the invention was made to store the extension in the extension database in order to provide actual data of extended functionality.

6.   Claims 4, 7, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Caron et al (U.S. Patent No. 6,108,661) in view of Turkowski (U.S. Patent No. 5,819,283).

With respect to claims 4, 7, and 19, Caron disclosed the claimed subject matter as discussed above except strong objects in cache memory. Turkowski discloses the use of cache memory (lines 2-4 in col. 3). Based on Caron in view of Turkowski, it would have been obvious to one having ordinary skill in the art at the time the invention was made to store objects in cache memory in order to speed a program execution.

7.   Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turkowski (U.S. Patent No. 5,819,283).

With respect to claims 11-15, Turkowski discloses a metafile that contains

information of individual objects (lines 60-67 in col. 1 and lines 1-3 in col. 2). Turkowski

discloses extensible object identifier data, an object field, an object name field, an object

extension field, a version field, a description of an object, and a table which entry is

referenced by a pointer (lines 58-67 in col. 5 and lines 1-55 in col. 6). Turkowski does

not expressly disclose an extension name field, an extension identifier field, and a

friendly name field. However, based on Turkowski, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to apply names and

identifiers to objects, i.e., extensible objects and extension objects, in order to

distinguish each object and identify each object easily by the user.

Response to Arguments

8.   Applicant's arguments filed in the amendment received on 8/8/2001 have been

fully considered but they are not persuasive.

The applicants argue that the distinction between Caron et al. (U.S. Patent No.

6,108,661) and the present patent application is as fundamental as the distinction

between an object and an instance of an object. However, the examiner respectfully

disagrees. An instance of an object is an object. Computer Dictionary (Microsoft Press,

second edition, 1994, page 215) defines an instance (of an object) as an object in

object-oriented programming. The examiner brings another disclosure, SOMobjects

Developer Toolkit User Guide (An introductory guide to the System Object Model and its

accompanying frameworks, IBM, June 1993, pages 2-1 – 2-5), to show a concept of

class and object and its relationship. SOMobjects Developer Toolkit User Guide

discloses a class as a definition of implementation of objects (on page 2-1) and shows

relationships between a class and an object (on page 2-3), which teaches multiple

objects from a class. This concept is well known in the art.

The applicants also argue that Turkowski (U.S. Patent No. 5,819,283) is directed

to adding data structures, which is not extending, while the present patent application is

directed to extending. However, the examiner respectfully disagrees. The present

patent application extends extra functionality of an object from an outside source,

meaning that the extra functionality is not originally from the object but from another

outside source. In other words, the outside source adds extra functionality to the object,

thus extending the functionality of the object. Therefore, adding and extending are

viewed equivalent.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not

clearly point out the patentable novelty which he or she thinks the claims present in view

of the state of the art disclosed by the references cited or the objections made. Further,

they do not show how the amendments avoid such references or objections.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

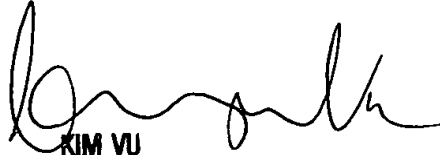MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joon H. Hwang whose telephone number is 703-305-

6469. The examiner can normally be reached on 9:30-6:00(M~F).

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Y Vu can be reached on 703-305-4393. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-308-5397 for

regular communications and 703-308-5397 for After Final communications.

    Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Joon Hwang
October 11, 2001